# Interim Site Survey Panel Meeting 22-24 July 2002 Lamont Doherty Earth Observatory Columbia University NY

### **Minutes**

Day 1 - 22 July 2002 - Monday

0830: Reports

- 1. iSSP Chair's welcome (Shin'ichi)
- 2. LDEO Director welcome (Mike Purdy)
- 3. Meeting Host Welcome (Dan Quoidbach)
- 4. Summary from iSAS office Nobuhisa, Eguchi (iSAS office)

### 5. Report to iSSP on iPC/other iSAS activities (Jamie Austin)

iPC will decide in August if a proposal is either ready or not ready – iPC will not yet rank proposal forwarded to them.

No certainty on Riser schedule – late 2007 or early 2008

Chikyu not ready for proposals

MSP proposals may be ready to start drilling as early as 2004.

It is important to keep proponents interested from 2002 until 2004.

IPC wants the interim program to be positive and nurturing – rather than turning people away. At this time proposals should not be turned away. 85 proposals in, but how many are in a ready stage? 2 out of 5 ready for ranking perhaps.

iTAP: Kate Moran chair – deal with Industry in new ways. iTAP stands for interim Technology Advice Panel (like TEDcom – Technology Development Committee)

ILWG - Interdisciplinary Liaison working Group

A guide is being set up to help proponents submit proposals to IODP

Ranking of 5 forwarded MSP proposals – 2004-2005 drilling starting in summer One is the Arctic – iPC will rank them in August.

Question - does iSSP get early input?

Question - reviewing proposals over 2 years may scare away proponents. This will generate more work from the panels to keep an eye on the evolution of the proposals.

Keep consistent with messages – may need to do more work for site survey every year.

Keeping people interested – keep same message... from year to year

Improve quality of data submitted – e.g. digital – versus analog – we want to help them make their proposal competitive.

Discussion on Complex Drilling Program (CDP)

### 6. iSSEPs Liaison Report (Andre Droxler)

ESSEP – creates a 3 level Priority Grouping

I – highest priority to iSSEP's objectives

II – important priority to iSSEP's objectives

In addition to be relevant to iSSEP's

The concerns about communication have been reduced by sending the same two liaisons to several iSSEP meetings in a row when possible.

Everyone is happy that iSSP has decided to develop early review of proposals etc., and pre-proposals

### 7. iPPSP - Joel Watkins substituting for Barry Katz

Major philosophy change: PPSP needs to be involved early on in the process. Because drilling will be done in different (and new) environments PPSP will require higher standards in terms of data quality.

4- Tiered review process

Watchdogs: Early identification of problems. Steer and advise proponents/cochiefs

- A) Non Riser Drilling:
- 1) Low-risk: mail reviews
- 2) Moderate-risk:
- 3) High-risk:
- B) Riser Drilling

Required Potential hazards summary

Panel Makeup: Fewer generalists and more specialists

Closer coordination with iSSP: liaisons already exist

iSSP could comment on quality of data that are requested by PPSP

No necessity to meet in same location and timing as iSSP

Long term proposals deep objectives high risk will need several years to be ready for drilling.

It is okay to ask Proponents to be active (in a positive manner) because they will be getting large amount of support for their science over several years.

If you have a riser program – you need 4 years lead time before it could be drilled.

### Morning - Coffee break -

### 8. iSciMP - David Divins -

OD21 data base core description and visualization system (potential successor of the ODP Janus system).

Scientific Party: all scientists selected by IODP to produce initial openly shared data associated with the project.

Auxiliary Party: All other scientists selected by IODP that receive samples and data within the moratorium period.

Science Party members have priority over Auxiliary Party members regarding sampling and data.

Moratorium: probably 12 months IODP like ODP will need to be phasing for CDP's.

Issues related to coring with a riser, long term observatories, ownership of the drilled Hole itself, ownership of downhole logging data, will need to be addressed. Issues related to microbiology, handling, storages issues, and Issues related to standardization have been discussed.

Recommendation on new technologies (iSSP input)

Minimum set of requirements, physical properties, geochemistry data,

Minimum requirement in terms of lab for MSP Legs

A proposal has been developed to conceive five different vans in which description of the cores, core storage, basic logging, and basic analyses will be conducted.

Overlaps with iTAP data issues with people dealing with technical development Maintaining color film until digital CCD dynamic range and size of color surpass color film

Scientific Party versus Auxiliary Party (former has priority over latter). The former is selected whereas the latter requests data. Former need to be on ship or on beach measuring the cores retrieved from MSP or riser drilling.

What types of geophysical tools need to be included on the new IODP platforms in particular the new non-riser IODP ship?

### 09. Now OD21: Tsukuru, Hashimoto

Shakedown cruise for Chikyuu by using riser system in 2006 is going to be conducted with one hole in Tokai-Oki and two holes in Sanriku. Oki. A series of site survey in both areas is planned from 2002 to 2004. JAMSTEC have completed 2D seismic data acquisition. Those data sets are currently being processed. General parameters for the data acquisition work were reported:

Tokai Oki

Bathymetry: 800-4000 m Cable Length: 4000 m Line Spacing: 1-4 km

Target: thrust fault and Tertiary

Sanriku Oki Bathymetry 800-3000 m Cable Length 5000 m Line Spacing 2-4 km Target; Upper Cretaceous

Once the data processing and interpretation have been completed, a high resolution seismic survey, maybe 2D survey, will be conducted in late of 2002 or early 2003 for the three potential hole locations. Following the high resolution survey, surveys, including current profiling, sea bottom topography, and coring, will be conducted. Weather information will be acquired from 2003 to 2004.

The following question was asked: Could the operator of the shake down cruise share data with iSSP? Mike suggests we are kept in loop of data acquisition (NE Japan and S Japan).

The overall survey for the shakedown cruise could be used as a benchmark for future drilling for the large community. Need to establish a dialogue between operator and panels. Majority of the panel members agreed that iSSP would benefit by reviewing the site survey data (site characterization data) that is deemed acceptable by the operators in defining the riser drilling site. Furthermore, there is the possibility that feedback from the iSSP might provide the operators with a better (scientifically speaking) site location to drill.

### 10. Dan Quoidbach – Database update

It is relatively quiet at the iODP Data Bank– a few issues regarding ongoing legs had to be worked on. Leg 204 sent in 3d seismic grid.

New documents have been added on the web site of the data bank.

Form to be filled regarding the digital seismic data to be submitted.

Comparison of Survey Data requirements: Table comparing the three different types of drilling Non-riser, Riser, MSP, PPSP (safety requirements).

Need a central data bases: Need to create a Web System (HTML based) to link Proposal Management, Site Survey Management, Review Management

Add the drilling Riser, Non Riser, MSP, which kind of drilling platforms for MSP Mike suggestion

Web services: can be checked from any local offices

Discussion on Matrices:

Need to make documents available to proponents, with some explanations that the requirements for each specific proposal are discussed by the iSSP members. AT this point, iSSP will not be looking at any Leg reviews by the JOIDES safety panel. Review packages of legs 202-204 —have been prepared. The SEG-Y variability used in the different seismic data sets can be quite a challenge for IESX. It will be necessary to narrow it. Guidelines for data submission — on overhead (appendix) ...data needs more documentation without having to go through headers etc to find it. The forms will be online

### LUNCH

### 1300 DATA REVIEW OF INDIVIDUAL PROPOSALS

### 1530 Presentations of Reviews

Review of last scheduled ODP legs for year 2002 and 2003 no necessary, since no site survey issues have been brought up regarding these future ODP legs.

# MSP-1: 519-Full2 (MSP) South Pacific Sea Level:

Watchdogs: Roger Scrutton/Mike Enachescu

Little site survey data in Data Bank

Site Survey Cruises are scheduled for Sept. 2002 in Great Barrier Reef and Oct. 2002 in Tahiti:

Readiness: 2C Drillable in 2004

### MSP-2: 533-Full3 (MSP) Arctic-Lomonosov Ridge

Watchdog: Soenke Neben

New seismic data, higher quality

No velocities supplied to data bank\*\*\*

\*\*\* Since the July 2002 iSSP at LDEO, Dr. Sönke Neben met with Dr. Wilfried Jokat in early August to look at the Sonobouy data. The data set is of very good quality and W Dr. Wilfried Jokat promised to mail the data set to the iSSP data bank. Dr. Sönke Neben, main watchdog of the proposal, thinks that velocity information is now sufficient.

### Readiness:

**Sites 13A and 14 A: 2A,** Drillable in 2004 **Sites 04 and 05: 2B,** Drillable in 2004

Sites 06, 10, 12, and 08 (old 5): 3B Not drillable in 2004

**Notes & iSSP Consensus:** Overall no velocities (see note above \*\*\*). Lack of crossing lines for some of the sites. Deep Penetration (400 m plus) expected at one site (LORI-13A) through an unconformity, might generate some safety issues. The unconformity might act as a seal, trapping sedimentary package old enough to have developed thermo-maturation for hydrocarbons.

Proposal of a scaled back program might be more feasible at this time, panel feels that the proposed drilling program somewhat too ambitious with the data at hand. Panel suggests the creation of a subgroup between proponents, and some members of iPPSP, and iSSP.

# MSP-3: 548-Full2 (MSP) Chixculub K-T Impact Crater

Watchdog: David Naar

Readiness: 3B, not feasible for drilling in 2004

**Notes & iSSP Consensus:** No new data at the data bank. 2001-2002 CSDP Onshore drilling penetrated 1.5 km between the two proposed drill sites (Chicx-01A and Chicx-02A). The K/T boundary was reached at 800 m, the impact ejecta is deposited between 800-900 m, deeper occurrence of limestone and anhydrite. Proponents need to submit and/or coordinate with iSSP data bank to verify that the full navigation information exists for all seismic data submitted. Proponents are actively pursuing data collection, e.g., USA funded 2-D MCS seismic survey to be conducted during a funded GB 3-D OBS survey.

### MSP-4: 564-Full (MSP) New Jersey Shallow Shelf

Watchdogs: Mike Enachescu/Tetsuro Tsuru

Austin (proponent) left the room for the discussion

Readiness:

Sites MAT-1, MAT-2, MAT-3: 1B, feasible for drilling in 2004

Notes & iSSP Consensus: Data need to be better organized at DB, hopefully

before February 2003

1700 Closing for the day- Wine and Cheese reception at LDEO Library.

1800 Dinner organized by Dan Quoidbach (iSSP meeting host) at Harbor House.

DAY 2 - July 23, 2002 - Tuesday -

0830 - NOON - Review of proposals.

### 543-Full2 (Forwarded to iPC-1) CORK in Hole 642E

Watchdog Kirk McIntosh

Readiness: 1A

**Notes & iSSP Consensus:** Passive margin of Norway and Vicinity of Site 642. iSSP panel believes that all necessary site survey data exist and are in the data bank.

# 553-Full (Forwarded to iPC-2) Cascadian Margin Hydrates Delayed for afternoon

# 557-Full2 (Forwarded to iPC-3) Storrega Slide

Watchdogs: Roger Scrutton/ Noriko Tsumura

Readiness: Sites 1 to 5: 2C Sites 6 and 7: 3B

**Notes & iSSP Consensus:** Major slump 8 ky old. Gas hydrates dissociation as a trigger mechanism for the slump. More substantial grids of seismic lines are needed around sites ST 01-05, and cross-line data are needed through sites ST-06 and ST-07. These and other data should be forthcoming from site survey cruises. Potential problems with hydrocarbons.

This is the first time iSSP has looked at proposal 597/Full. At this time no data sets have been deposited at the data bank. At their June 2002 meeting, iSSEP's have strongly endorsed the plans to conduct seismic and coring surveys in support of the proposal. The addition of these data sets would greatly benefit the review of the proposal by the iSSEP's. These new data will need to be included in future versions of the proposal before the proposal will be submitted for external reviews. The drilling program developed in 597/Full is very complex. Different types of platforms will be needed to drill the series of tentatively proposed sites located within a wide range of water and drilling target depths (from neritic to abyssal depths and with shallow to deep penetration). The proponents are encouraged to contact the iSSP watchdogs during the preparation of the site survey proposals if questions arise regarding the sets of data required by iSSP for drilling the proposed sites in 597/Full.

### 572-Full3 (Forwarded to iPC-4) N. Atlantic Late Neogene

Watchdog: André Droxler

Readiness:

Sites LAB1A, IRM1A, IRM2A, IRD1A, and IRD2A: 1A

**Site LAB1B: 1B** (no 3.5 kHz available)

**Site ORPH1A: 2A** (high resolution seismic and "?" 3.5 kHz was acquired by David Piper during a cruise on the RV Hudson in August 2001; data sets have not been deposited at the iSSP data bank)

**Sites GAR1A and GAR2A: 2A** (high resolution seismic, Hydrosweep, 3.5 kHz, and "?" piston cores will be acquired by Greg Mountain during a cruise on the RV *Knorr* in July 2002)

**Notes & iSSP Consensus:** Based upon previous SSP reviews and the latest review by the iSSP in the July 2002, the nine proposed primary drill sites have received the overall readiness status ranging from 1A/1B to 2A in the "iSSP Site Survey Readiness Classification". 1A. All required data are in the Data Bank. 1B. A few required items are missing from the Data Bank, but are believed to exist and to be readily available. 2A. Substantial items of required data are not in the Data Bank, but are believed to exist.

### 573-FUII3 (Forwarded to iPC-5) Porcupine Basin Carbonate Mounds

Watchdog: André Droxler

Readiness: 1A

**Notes & iSSP Consensus:** Unchanged from previous SSP determinations. 1A for the thirteen dill sites proposed in 573-Full2. 1A = All required data are in the Data Bank.

Based upon the studies of the seismic lines available at the data bank, the SSP members had already concluded, at their 2001 February meeting, that the proposed drilling targets, including the deepest ones, were sufficiently imaged in the available seismic lines. Since the SSP February 2001 meeting, the proponents have submitted in late June 2001 some excellent quality seismic lines that were acquired in May 2001. The deepest proposed drilling targets are even better imaged in this latest vintage of seismic lines. In July 2001, SSP had concluded that all required data sets were currently at the ODP Data Bank for the thirteen dill sites proposed in 573-Full2. SSP had classified ODP proposal 573-Full2 as 1A = all required data are in the Data Bank. At the July 2002 iSSP meeting, members of the panel acknowledged that additional data have been, are currently, and will be collected in the near future. These new sets of data will add on the overall quality of the data already deposited at the data bank. iSSP members encourage the proponents to continue to send newly acquired and data sets to the data bank. For instance, results of the ongoing analyses of the Marion Dufresne giant piston cores collected in 2001 and future imaging and diving cruises will be important to strengthen the overall scientific rationale but also to justify the necessity to drill as many as thirteen sites as it is proposed in 573-Full2. The new data sets, therefore, will be particularly important in future iSSEP reviews.

### 581-Full2 (MSP-5) Late Pleistocene Coralgal Banks

Watchdogs: Rob Sohn/Kirk McIntosh

Droxler (proponent) left the room for the discussion

Readiness:

Sites SB-1, 2, 3, 4, 5: 1A, feasible for drilling in 2004: Sites BB-1, 2 and Sites MS-1, 2: 3B, not feasible for drilling in 2004 unless a site survey is organized for those sites in the next year or so.

**Notes & iSSP Consensus:** There has been no change in the status of this proposal since the last review in the sense that no new data have been submitted. The previous panel felt as though the seismic data submitted to the data bank are sufficient for drilling on Southern Bank. The present panel concurs with this assessment, but noted that there may be environmental concerns associated with drilling a reef in the Gulf of Mexico, and we suggest the drilling plan be forwarded to PPSP. We note that an optical (photographic) survey of the drilling target would be inexpensive, and might alleviate environmental concerns.

Sufficient data to support drilling at the Baker Bank and MS sites has not been submitted to the data bank, and basically does not exist. Some sparker data exists for the Baker Bank, but this would generally not be considered sufficient for drilling.

The panel does note, however, that the drilling plan is modest and inexpensive, and thus does not require dense seismic coverage.

The change in readiness classification from last July primarily reflects the new rating system being used by iSSP.

# 584-Full2 (Forwarded to iPC-6):TAG II Hydrothermal

Watchdogs Shin'ichi Kuramoto/Robert Sohn

Readiness: 1A

Note: The proponents have already submitted the required data packets for each of the five proposed sites in the iSSP Data Bank.

**Notes & iSSP Consensus:** The proponents have already submitted required data packets for each of the five proposed sites in the Data Bank. This submission was responsive to all of the site survey needs identified by the iSSP. All sites are considered 1A.

### 589-Full3 (Forwarded to iPC-7): Gulf of Mexico Overpressures

Watchdog Michael Enachescu

Readiness: 1B

Note: The iSSP acknowledges that most of the required data for this type of site is in DB, but must be properly organized (text and illustrations).

**Notes & iSSP Consensus:** A riser-less platform is needed to achieve this proposal. The iSSP acknowledges that most of the required data for this type of site is in DB, but must be properly organized (text and illustrations). Final sites, both primary and alternate, must be properly displayed and labeled on all maps (including regional location maps) and seismic sections. Whenever color is needed to support the concepts, color displays of maps and seismic section should be sent to the DB. We still need velocity curves that were used for depth

conversion. All required missing data, final site locations and attached stratigraphic study should arrive at DB prior to February 2003 meeting.

# 515-Full (Not forwarded to iPC-1) Black and Marmara Seas Sediments

Watchdogs: Shin'ichi Kuramoto/Soenke Neben

no data at data bank

need to send a strong message that data need to be sent

Readiness: 3A

**Notes & iSSP Consensus:** iSSP requests to the proponents submit site survey data to the Data Bank as soon as possible. High resolution seismic data sets are required to the shallow target sites, and deep penetrate seismic data are required to the DAN04A site. Another geological and geophysical data are required (3.5 kHz, swath bathymetry, navigation, core sample descriptions, etc) too. All sites are considered 3A.

### **552-Full3 (**Not forwarded to iPC-2) **Bengal Fan**

Watchdogs: Kyoko Okino/David Naar

no data at the data bank

Readiness: 3B

**Notes & iSSP Consensus:** Required site survey data sets are still not exist in the databank. iSSP recommends to submit the available data to the databank and improve the figure in the proposal. iSSP also encourages proponents to collect more background data including the cross seismic lines and piston cores.

### **595-Full3 (**Not forwarded to iPC-3) **Indus Fan Riser & Non-Riser**

Watchdog: Kyoko Okino

NSF proposal to survey the Indus Fan

Another proposal 521 some data in DB for this proposal

Approach different reason why the proposal number has been changed

Readiness: 2C

**Notes & iSSP Consensus:** Substantial items of required site survey data are still not exist in the databank. iSSP recommends to submit the available data to the databank with navigation information. iSSP strongly encourages proponents to continue the effort to put their grid seismic survey plan into practice.

### Noon – 1300 Lunch

### Afternoon July 23 2002

### 553-Full (Forwarded to iPC-2) Cascadian Margin Hydrates

Watchdog: Soenke Neben

Readiness: 2A

**Notes & iSSP Consensus:** Data from 146 and data (3D) have not yet been submitted. The consensus remains that the Leg 146 site survey data does not

fulfill all site-survey requirements for this new proposal; a new site survey data package should be submitted to achieve 1A status.

# 567-Full (Not forwarded to iPC-4) South Pacific Paleogene

Watchdogs: Tetsuro Tsuru/David Naar

Readiness: 3B

**Notes & iSSP Consensus:** The Panel acknowledges that numerous SCS profiles of the DB were used and some copies of them are provided in the DB, but they are old and are not easy to be used for geological interpretation. The Panel strongly has expectation of submission of the new site survey data, which can be used for judging whether carbonate is distributed at all sites as well as whether no hiatus exists in the target time interval.

### 591-Full (Not forwarded to iPC-5) Conical/Desmos Hyd., PNG

Watchdog: Shin'ichi Kuramoto

survey is scheduled Readiness: 3B

**Notes & iSSP Consensus:** iSSP requests to the proponents submit site survey data to the Data Bank as soon as possible. High resolution seismic data are required for the shallow target sites, and deep penetrating seismic data sets are required to the HOST-01A site. Another geological and geophysical data are required (3.5 kHz, swath bathymetry, navigation, core sample descriptions, etc).

# 593-Full (Not forwarded to iPC-6) Gulf of Mex. Neogene Climate

Watchdogs: Noriko Tsumura/Kirk McIntosh

Holes are 250 to 400 m in terms of penetration

Good quality data sets already exist with the industry.

The proponent should link himself with colleagues in the oil and gas industry.

let Ben Flower know that there is (Shell) industry surveys at

part or all of Rio Grande site and all other US sites have

Mexican Ridge might have UT data, Joel Watkins says that the data should be available – check with contractors to release data sets that have to exist in the area of proposed sites. iSSEP's has asked for site surveys. There may be commercial site surveys etc., find out who owns the acreage, etc.

See Will Sager – at Texas A and M at College Station.

Also contact André Droxler who has contacts.

Readiness: 3A

**Notes & iSSP Consensus:** Data have been submitted to the databank, and so it is not possible to determine the site survey readiness of the proposed sites. Since substantial industry seismic data exist in the Gulf of Mexico, required data could be collected.

# 597-Full (Not forwarded to iPC-7) S. Alaska High-Resolution Sediments

Watchdog: André Droxler

A site survey will be acquired to support the scientific rationale and the drilling

Readiness: 3B

Notes & iSSP Consensus: This is the first time iSSP has looked at proposal 597/Full. At this time no data sets have been deposited at the data bank. At their June 2002 meeting, the iSSEP's have strongly endorsed the plans to conduct seismic and coring surveys in support of the proposal. The addition of these data sets would greatly benefit the review of the proposal by the iSSEP's. These new data will need to be included in future versions of the proposal before the proposal will be submitted for external reviews. The drilling program developed in 597/Full is very complex. Different types of platforms will be needed to drill the series of tentatively proposed sites located within a wide range of water and drilling target depths (from neritic to abyssal depths and with shallow to deep penetration). The proponents are encouraged to contact the iSSP watchdogs during the preparation of the site survey proposals if questions arise regarding the sets of data required by iSSP for drilling the proposed sites in 597/Full.

# 607-Full (Not forwarded to iPC-8) New Jersey Slope

Watchdogs: Kirk McIntosh/Michael Enachescu

Readiness: 3A

Notes & iSSP Consensus: The panel believes that most of the necessary site survey data probably exist and many of these data are in the data bank. However, these data are associated with previous drilling programs and need to be linked to this proposal under the direction of the proposal 607 proponents. Because the proposed sites are on a well-sedimented passive margin, they will require extensive supporting data: crossing seismic lines with penetration to at least the target depth (the target must be imaged) will be necessary but a grid of In addition seismic velocity data, detailed seismic profiles is preferred. bathymetry, seafloor sampling, sub-bottom profiler data, and navigation for all these data sets will be required. We also want to point out that for the eventual safety evaluation, additional products such as true amplitude seismic sections, structural contour maps, and isopach maps may well be required. We advise the proponents to select numerous alternate sites (approximately one for each primary site), which also have sufficient supporting data to prepare for any future contingencies. We suggest that the proponents submit data to the databank as soon as possible, so the proposal can continue its journey through the system without unnecessary delay. Other data are recommended for submission to the data bank but not necessarily required. These data include heat flow, gravity, magnetics, and sidescan sonar.

### 610-Full2 (Not forwarded to iPC-9) W. Florida Margin

Watchdog: Noriko Tsumura
22 sites in three transects most of them 100 m penetration
seismic does not always imagine the target
single channel Uniboom is not adequate to imagine well
no adequate seismic in the proposal. The data should image the target.

Add drill sites right onto multi-beam bathymetry and plot out on large color format plotter and put into proposal as jpeg or tiff and submit a geotiff to data bank in addition to the large color plots for Pulley Ridge, FMG, and Riley's hump Single channel boomer data inadequate for a 100 m recovery drill because of two factors – scientifically iSSP wants seismics to image target before drilling and safety panel wants to make sure it is safe. Now near the Tortugas you may have exploratory wells by industry, because if you have had saltwater flushing as seen on east coast of Florida and the Bahamas it will be safe, but it will still not be scientifically satisfying for iSSP. Submit existing data to data bank however, so the iSSP can evaluate.

And if there has been saltwater flushing, Jamie Austin suggests diagenetic problems may arise etc.

Readiness: 3B

**Notes & iSSP Consensus:** No data have been submitted to the databank, and so it is not possible to determine the site survey readiness of the proposed sites. The data presented in the proposal are not sufficient for site survey of these sites. The proponents are urged to collect and submit relevant existing data before February 2003.

### **PRE-PROPOSALS**

No category within the Readiness Classification has been selected yet for Pre-Proposals.

### 600- Pre (Not forwarded to iPC-1) Canterbury Basin

Watchdogs: Kyoko Okino/Soenke Neben

**Notes:** Because of water depth about 100 m and penetration, MSP will be necessary.

# 601- Pre (Not forwarded to iPC-2) Iheya Ridge

Watchdog: Rob Sohn This proposal is representative of a new "breed" of proposals that we expect to see more and more of in the new program, wherein active hydrothermal circulation systems will be drilled in young crust to investigate the nature of a deep biosphere. The traditional types of site survey data will not be particularly useful, as the drilling targets are transparent to seismic reflection methods to first order. The proponents will need to have a good understanding of the hydrothermal circulation pattern at their drill site, and the position of the hightemperature water-rock reaction zone, in particular. The reaction zone generates swarms of very small microearthquakes as it cools, contracts, and is penetrated passively recording 4-component ocean bottom and thus seismometers (OBS) deployed over periods of a few months can effectively delineate the base of the circulation Thus the panel recommends that passive OBS microearthquake data be obtained at the drill sites to allow the proponents to determine how deep the holes must be to achieve their stated objectives. MCS data could be obtained, but it is likely that refraction data will actually be more useful for determining the

permeability of the host rock, and thus for inferring the circulation patterns. Riser drilling might be needed to recover material especially for drilling deeper than 50 to 100 m especially in penetration as much as hundreds' of meters (water depth 1000 to 1500 m). Perhaps might be developed as a Complex Drilling

**Notes**: The panel exhorts the proponents to ally themselves with seismologists capable of performing the experiments and performing analyses described above, and feels as though a drilling program constructed on models developed in this way will have a high probability of successfully achieving the desired scientific objectives.

### 603- Pre (Not forwarded to iPC-3) Nankai Trough

Watchdog: Michael Enachescu

**Notes:** Both a riser-less platform and the riser ship are needed to achieve this proposal. A great variety of geophysical and geological data exists in the area. However no data has been deposited in the DB and the final sites have not been selected. We recognize that this is a long-term proposal that will require major pre-drill resources. As soon as the existing data is compiled or new data becomes available, it should be send to the DB for iSSP use and improving its iSSP ranking.

### 605- Pre (Not forwarded to iPC-4) Asian Monsoon

Watchdogs: Soenke Neben/ Kyoko Okino

**Notes:** Water depths: 700-3683m, Penetration: 300-1000m (intermediate target depths). Drilling platform: non-riser (JOIDES Resolution type). Required site survey data: Navigation (GPS/DGPS), Bathymetry: high resolution multi-beam, Sub bottom profiling Seismics: intersecting multi-channel seismic reflection lines, cross lines over proposed sites, seismic velocities (refraction/wide-angle seismics and/or data from DSDP leg 31 and ODP legs 127/8), Sampling: sediment cores and/or information from cores recovered from DSDP/ODP, Physical oceanography: currents, tides, Heat flow. All data submitted to the data bank should be in digital form.

### 608-Pre (Not forwarded to iPC-5) NW Pacific Cretaceous Greenhouse

Watchdog: Tetsuro Tsuru

Jamie Austin and David Naar felt that the form that used Tetsuro was very appropriate. This type of form might be developed in the future for reviewing pre proposal

**Notes:** We believe that almost data required for the sites exist, but they have not received at the DB yet. The Panel encourages the proponents to submit site survey data including seafloor topography, girded magnetics and gravity, and seismic velocity data in near future.

### 602-Pre2 (Not forwarded to iPC-6) Tropical Epeiric Seas

Watchdog: David Naar

**Notes:** This pre-proposal addresses a new class of target for IODP and represents exciting scientific opportunities. iSSP looks forward to the development of the full proposal including a fuller description of where site survey exists and discussion of plans to collect site survey where needed for Mission Specific Platform drilling. Presently, no data exists in the data bank.

# 611-Pre (Not forwarded to iPC-7) Pacific Warm Pool

Watchdogs: Noriko Tsumura/Rob Sohn

Need to add more details on the type of high resolution seismic

**Notes:** No data have been submitted to the databank, and so it is not possible to determine the site survey readiness of the proposed sites. The proponents are urged to collect and submit relevant existing data before February 2003.

### 612-Pre (Not forwarded to iPC-8) Geodynamo

Watchdog: Kirk McIntosh

**Notes:** The panel concludes that the following data types will likely be necessary to support the proposed drilling: High-resolution (preferably with frequencies to over 100 Hz) single or multi-channel seismic data, sub-bottom profiler data such as chirp sonar profiles or 3.5 kHz data, sediment core information, and navigation for all these data types. Additional supporting data are also recommended for submission to the data bank, such as swath bathymetry, intersecting seismic profiles, and sidescan sonar. Water current data may be necessary for some locations, and gravity and magnetic data should be submitted if available. We suggest that the proponents submit any available data to the data bank when convenient and make plans to acquire necessary survey data in the other areas.

### 613- Pre (Not forwarded to iPC-9) NW Pacific Margin Transect

Watchdogs: Shin'ichi Kuramoto/Roger Scrutton

**Notes:** This proposal requests to drill at 3 sites of the offshore Joban area where the appropriate sites to investigate Cenozoic sea-level changes and land-ocean linkages, because the high sedimentation rate and the successive deposition are expected. Our panel understands that this proposal requesting a semi-sub-type platform and/or riser drilling vessel to drill. Also the target depth, about 2000 m, may require a riser drilling capability.

### 615-Pre (Not forwarded to iPC-10) NW Pacific Coral Reefs

Watchdogs: David Naar/ André Droxler

**Notes:** This pre-proposal addresses a new class of target for IODP and represents exciting scientific opportunities. iSSP looks forward to the development of the full proposal and requests submission of all available site characterization data.

### 617-Pre (Not forwarded to iPC-11) Hudson Bay and Strait

Watchdog: Roger Scrutton

**Notes:** The proponents are encouraged to make a rigorous review of potential site survey data and to note that this should in the first instance assume the drilling environment is of Passive Margin type. The data types pursued should include those that will make the most of the scientific discoveries, such as data for regional mapping, as well as site specific information. The proponents may also be called upon in due course to help the PPSP and the platform operator to assemble data relevant to safety and drilling conditions.

### **End afternoon:**

### Discussion on equipment onboard the non-riser ship with David Devins

Drilling in geophysical context, seismic integrated with coring No need to survey with the drilling ship, we need therefore alternate sites: Current JOIDES Resolution geophysical acquisition capabilities: Seismic, Magnetic, Gravity, 3.5 kHz, data base management.

Consensus: minimum requirement. Routine SCS acquisition does not need to be included in the minimum geophysical system on the new riser ship.

### End of Day 2

**DAY 3 -**

### 0800

### **Location and Dates for iSSP February 2003 Meeting:**

Sylvie Leroy (U. Paris, France) will be at sea in February 2003 and will not be able to host the iSSP meeting as earlier planned. Luca Gasperini (alternate member for Annakaisa Korja (U Helsinki, Finland) has agreed to host the February 2003 in Bologna, Italy. The dates have been selected as February 24-26 2003.

### **Location and Dates for iSSP July 2003 Meeting:**

Dan Quoidback (iODP Data Bank) has agreed to host the July 2003 at LDEO. The dates have been selected as July 16-18, 2003

### Discussion of iPC Consensus 2-4 & iPC Consensus 2-5:

### A. iPC Consensus 2-4:

The iPC has received and discussed iSSP Recommendation 02-1-1 on the need for a two-tiered approach to site surveys in support of riser-based drilling. We note that the IWG has agreed that appropriate science operations costs include "engineering or geophysical surveys required for the hole design or evaluation of drilling safety during final site selection." We also note, however, that the need for complex, high-resolution, 3-D imaging in support of IODP activities may

extend beyond riser-based drilling. Therefore, the iPC urges the iSSP to continue examining this issue.

### Discussion:

JR is currently scheduled 18 months in advance. Riser expedition will be scheduled about 3 years in advance. High resolution will be provided by program only for the Whole site characterization. More regional 3-D seismic for science will be funded by national agencies to bring proposal to maturity. 3-D has led to riser less drilling, especially shallow site surveys.

### **iSSP** Reply:

Regional characterization of an area to develop the scientific rational of a proposal is the responsibility of the proponents.

Site specific survey for safety, engineering is the responsibility of the drilling program. Engineering or geophysical survey required for the whole design or evaluation of drilling safety during the final site selection.

### B. iPC Consensus 2-5:

The iPC recognizes the need identified in iSSP Recommendation 02-1-2 for a thorough evaluation of the requirements and procedures of an IODP data bank. We request that the iSSP complete such an evaluation and report the results at our next meeting in August 2002. The iSSP report should include recommendations concerning (1) the requirements for digital versus analog data, (2) allowable data formats, specified by type (i.e., seismic, bathymetric, hydrographic, etc.) and form (both analog and digital), (3) the mechanisms and timing of communications with IODP panels and proponents, and (4) facilities, hardware, software, and personnel required for creating and operating an IODP data bank that meets the needs of a diverse, international community.

### **Discussion:**

It is proposed that the DB in IODP will become a facilitator to help proponents find data they need, and furthermore, check data coming in and make sure it is usable and can go to the iSSP for review etc. This will help move proponents along and keep data sets integrated and prevent the iSSP getting clogged with unready packages to review.

### iSSP Reply:

iSSP proposes to establish a working sub group to develop requirements and procedures of an IODP data bank. Work will be starting through e-mail communications, continue during a meeting at Fall 2002 AGU meeting, if necessary a meeting a day prior to Feb. 2003 iSSP meeting Report to iPC in March 2003. Member: Scrutton (Chairman), Tsuru, McIntosh, Divins (iSciMP), Watkins (iPPSP), Eguchi (iSAS), Quoidbach (ODP DB Manager)

Thanks to Dan Quoidbach for hosting the meeting.

# Meeting ends 11:00 AM

Members:

Kuramoto, Shin'ichi (AIST, Japan; co-chair) Droxler, Andre (Rice U., USA; co-chair) Enachescu, Michael (Husky Oil, Canada)

Leroy, Sylvie (U. Paris, France) Neben, Soenke (BGR, Germany) McIntosh, Kirk (U. Texas, USA) Naar, David (U. South Florida, USA)

Sohn, Rob (WHOI, USA) Okino, Kyoko (ORI, Japan)

Tsuru, Tetsuro (JAMSTEC, Japan) Tsumura, Noriko (Chiba U., Japan) Scrutton, Roger (Edinburgh U., UK)

Apologies: Caress, David (MBARI, USA)

Korja, Annakaisa (U. Helsinki, Finland)

Nogi, Yoshihumi (NIPR, Japan)

Qiu, Xuelin (CAS, PRC)

Liaison: Austin, Jamie (iPC)

Watkins, Joel (iPPSP)
Divins, David (iSciMP)

Eguchi, Nobuhisa (iSAS Office) Quoidbach, Daniel (ODP Data Bank)

Guest: Hashimoto, Tsukuru (JAMSTEC)

Meeting Host: Quoidbach, Daniel (ODP Data Bank)